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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/082,089	02/26/2002	Hitoshi Takayanagi	020232	8614

23850 7590 02/26/2003

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EXAMINER

NOTE, JANIS L

ART UNIT

PAPER NUMBER

1756

DATE MAILED: 02/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/082,089

Applicant(s)

TAKAYANAGI et al

Examiner

J. DOTE

Group Art Unit

1756

— The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- ☒ Responsive to communication(s) filed on 7/26/02
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- ☒ Claim(s) 1-11 is/are pending in the application.
- Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- ☒ Claim(s) 1-11 is/are rejected.
- ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- ☐ Claim(s) \_\_\_\_\_ are subject to restriction or election requirement

## Application Papers

- ☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner
- ☒ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119 (a)-(d)

- ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).

☒ All ☐ Some\* ☐ None of the:

☒ Certified copies of the priority documents have been received.

☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_

☐ Copies of the certified copies of the priority documents have been received

in this national stage application from the International Bureau (PCT Rule 17.2(a))

\*Certified copies not received: \_\_\_\_\_

## Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 294 ☐ Interview Summary, PTO-413
- ☒ Notice of Reference(s) Cited, PTO-892 ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948 ☐ Other \_\_\_\_\_

Office Action Summary

1. The disclosure is objected to because of the following informalities:

The use of trademarks, e.g., Viscol 660P [sic: VISCOL 660P] at page 46, line 19, has been noted in this application. The trademarks should be capitalized wherever they appear and be accompanied by the generic terminology. This example is not exhaustive. Applicants should review the entire specification for compliance.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Appropriate correction is required.

2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

In claim 6, the recitation that the binder resin is a polyester resin and a vinyl copolymer resin lacks antecedent basis in the specification. See pages 9-14 of the specification.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 9-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 9 is indefinite in the phrase "dissolving or dispersing a binder resin and a colorant in an organic solvent" (emphasis added) for lack of unambiguous antecedent basis. It is not clear whether the binder resin and colorant dissolved or dispersed in an organic solvent in claim 9 refer to the binder resin and colorant recited in claim 8 or to an additional binder resin and colorant.

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an

application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f), or (g) prior art under 35 U.S.C. 103(a).

8. Claims 1-4 and 6 are rejected under 35 U.S.C. 102(e) as being anticipated by US 2001/0033982 A1 (Ishikawa).

Ishikawa discloses a magenta toner comprising spherical toner particles having a 50% circular degree of 0.97. See example 3, paragraphs 0242 to 0257. The toner particles comprise a styrene-butylacrylate-acrylic acid binder resin having dispersed therein the magenta pigment of formula (A). Ishikawa's binder resin meets the compositional limitations recited instant claim 6. Ishikawa's 50% circular degree has the same definition as the roundness recited in instant claims 2 and 3. See Ishikawa, paragraph 0131; and the instant specification, page 16. The 50% circular degree of 0.97 is within the ranges recited in instant claims 2 and 3. Ishikawa further discloses that the 50% circular degree is preferably 0.99 or less. Paragraph 0131. The value of 0.99 is within the range recited instant claim 4. The magenta pigment of formula (A) is within the compositional limitations of formula (1) recited in instant claim 1.

9. Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by US 6,063,537 (Nakamura), as evidenced by Japanese Patent 2000-81734 (JP'734). See the Japanese Patent Office (JPO) machine-assisted translation of JP'734 for cites.

Nakamura discloses a magenta toner comprising spherical toner particles having a roundness of 0.981. See Table 2 at col. 27, example M-2. The toner particles comprise polyester binder resin A, which has a carboxyl group and an acid value of

3.3 mg KOH/g of binder resin, having dispersed therein the magenta pigment C.I. Pigment Red 184. See Table 1 at col. 19, polyester resin A; col. 19, lines 60-61; and col. 21, lines 28-33. Nakamura's polyester binder resin A meets the compositional limitations recited instant claims 6 and 7.

Nakamura's roundness has the same definition as the roundness recited in instant claims 2-4. See Nakamura, col. 3, lines 1-27; and the instant specification, page 16. The roundness of 0.981 is within the ranges recited in instant claims 2-4. C.I. Pigment Red 184 is identified by JP'734 as comprising two naphthol azo pigments that are within the compositional limitations of formula (1) recited in instant claims 1 and formula (2) recited instant claim 5. See JP'734 and the translation, paragraph 0154.

10. Claims 1-7 are rejected under 35 U.S.C. 102(e) as being anticipated by US 6,265,125 B1 (Anno), as evidenced by JP'734. See the JPO machine-assisted translation of JP'734 for cites.

Anno discloses a magenta toner comprising spherical toner particles having a roundness of 0.986. See Table 3 at col. 20, toner N. The toner particles comprise polyester binder resin B, which has a carboxyl group and an acid value of 24.9 mg KOH/g of binder resin, having dispersed therein the magenta pigment C.I. Pigment Red 184. Table 2 at col. 15, polyester resin B; col. 16, lines 50-51; and col. 18, lines 26-47. Anno's polyester

binder resin B meets the compositional limitations recited instant claims 6 and 7. Anno's roundness has the same definition as the roundness recited in instant claims 2-4. See Anno, col. 4, lines 25-53; and the instant specification, page 16. The roundness of 0.986 is within the ranges recited in instant claims 2-4. C.I. Pigment Red 184 is identified by JP'734 as comprising two naphthol azo pigments that are within the compositional limitations of formula (1) recited in instant claims 1 and formula (2) recited instant claim 5. See JP'734 and the translation, paragraph 0154. Anno discloses that its toner can be used in processes to provide full-color images with no fogging. See col. 20, lines 53-54; and Table 4 at col. 23, example 2.

11. Claims 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anno, as evidenced by JP'734, combined with US 6,183,924 B1 (Nomura).

Anno, as evidenced by JP'734, discloses a magenta toner as described in paragraph 10 above, which is incorporated herein by reference.

Anno does not disclose making its toner by the steps recited in instant claims 8-11. However, Anno discloses that its toner can be obtained by an emulsion dispersion granulation method. Col. 5, line 65.



Nomura discloses an emulsion dispersion granulation method which provides toner particles having a degree of roundness of not less than 0.97. Col. 4, lines 5-12. Nomura's method comprises the steps of: (1) dissolving or dispersing a binder resin and a colorant in an organic solvent to form a mixture; (2) mixing and emulsifying the mixture of step (1) with an aqueous medium in the presence of a base and isopropyl alcohol to cause a phase inversion emulsification to form spherical particles; (3) separating the spherical particles from the aqueous medium; and (4) drying the separated particles. Col. 9, line 44, to col. 10, line 37; and toner preparation example 1 at col. 19. Nomura teaches that the binder resin can be a polyester resin having an acid value of 1 to 30. Col. 12, lines 20-21. As discussed in paragraph 10, supra, Anno's polyester binder resin B has an acid value of 24.9 mg KOH/g of binder resin. Nomura's method meets the steps of making a spherical toner as recited in instant claims 8 to 11, but for the particular magenta pigment of formula (1) recited in instant claim 1. However, as discussed in paragraph 10, supra, Anno teaches a spherical toner comprising a magenta pigment of formula (1) recited in instant claim 1. Nomura discloses that its method provides toners where the additives, such as colorants, are dispersed and encapsulated. According to Nomura, when the additives such as colorants are present on the surface of the toner particles, the

triboelectricity of the toner is reduced. Col. 6, lines 46-52. Nomura also discloses that its emulsification process has the advantages over a pulverization process (the process exemplified in Anno) of greater ease of production and lower cost. Col. 7, lines 3-5. Nomura further discloses that its process easily provides toners with a sharp particle distribution which results in improved image quality. Col. 7, lines 11-13.

It would have been obvious for a person having ordinary skill in the art, in view of the teachings of Anno and Nomura, to make the toner in Anno's example N by the emulsion dispersion granulation method disclosed by Nomura, such that the resultant toner has the roundness required by both Anno and Nomura, because that person would have had a reasonable expectation of successfully obtaining a magenta toner having the benefits disclosed by Anno and Nomura.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janis L. Dote whose telephone number is (703) 308-3625. The examiner can normally be reached Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Mark Huff, can be reached on (703) 308-2464. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9311 (Rightfax) for after final faxes, and (703) 872-9310 for other official faxes.

Any inquiry of papers not received regarding this communication or earlier communications, or of a general nature or relating to the status of this application or proceeding should be directed should be directed to the Customer Service

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Center of Technology Center 1700 whose telephone number is  
(703) 306-5665.

JLD  
February 21, 2003

*Janis L. Dote*  
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